



Strategies of Coconut farmers coping with the Yellow lethal disease

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with the collaboration of

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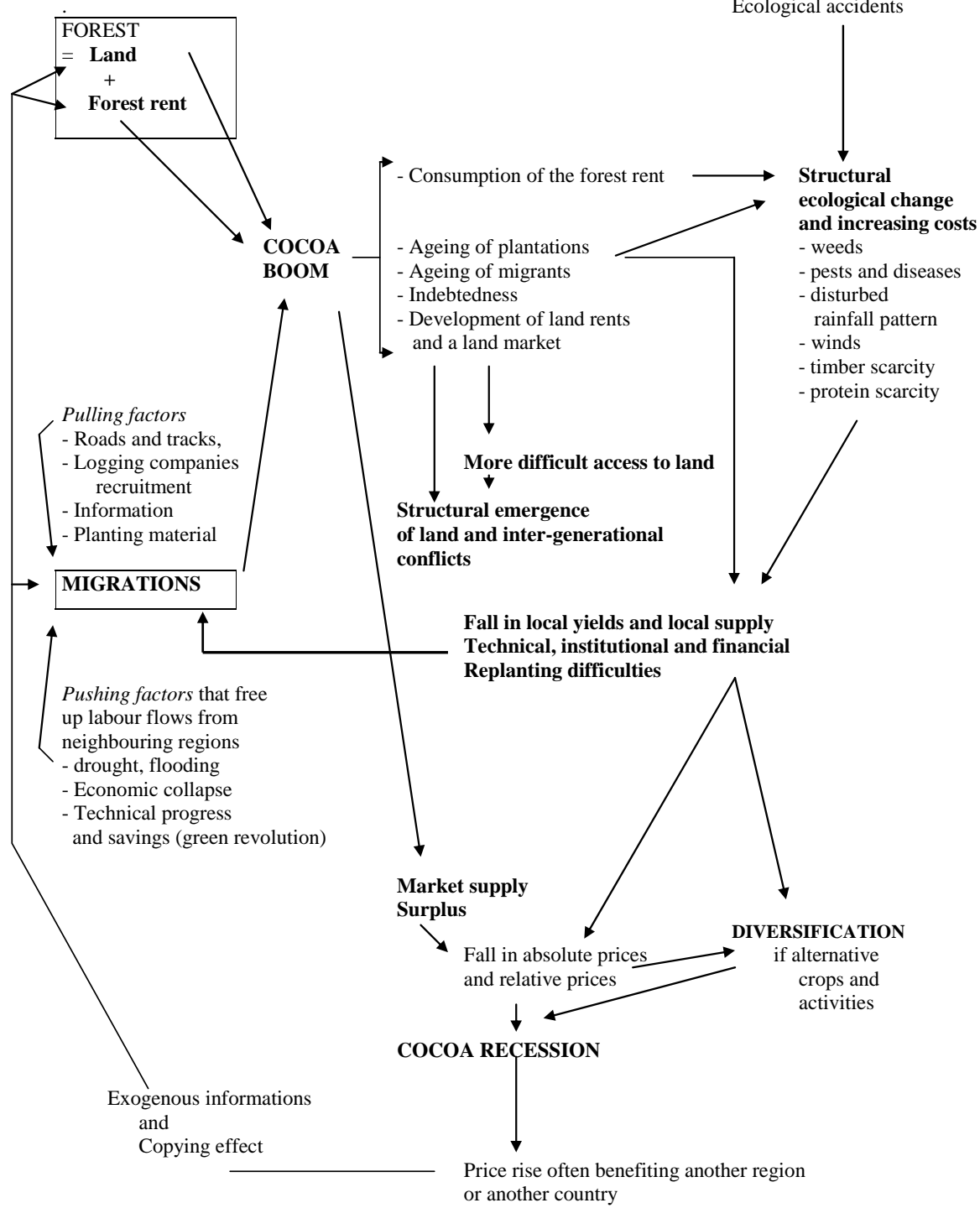


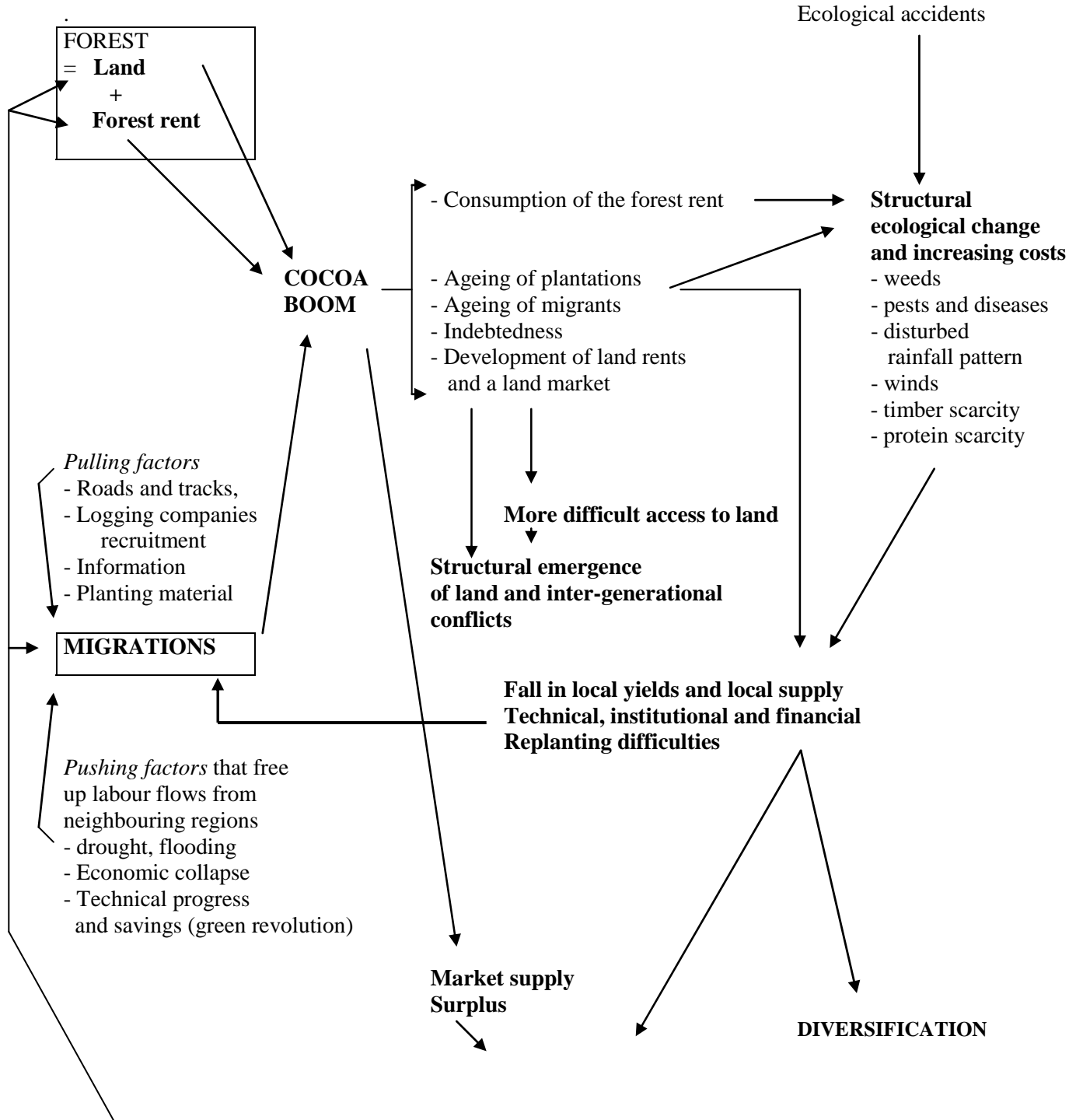


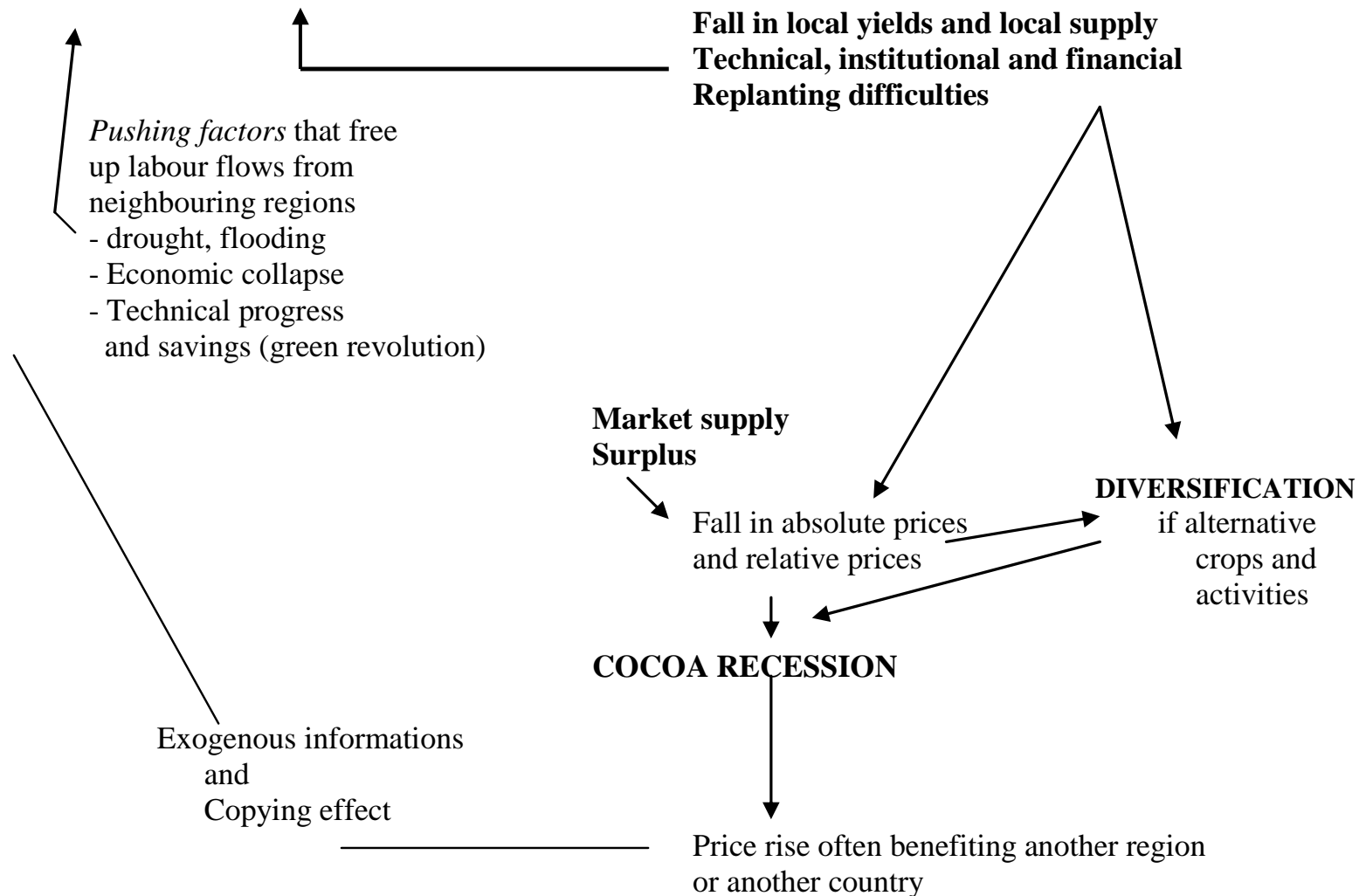


1. From Wealth to Chaos

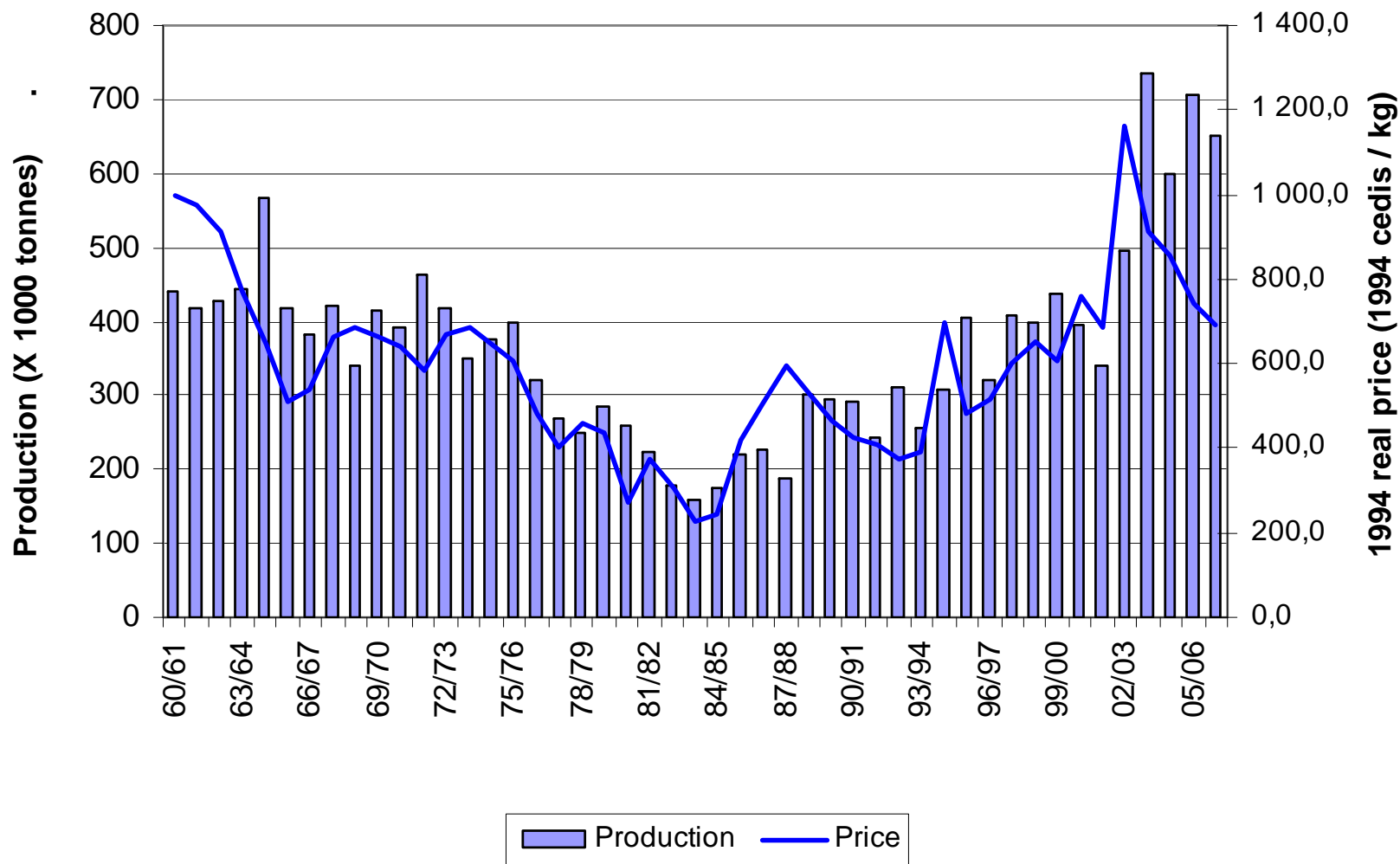
A model





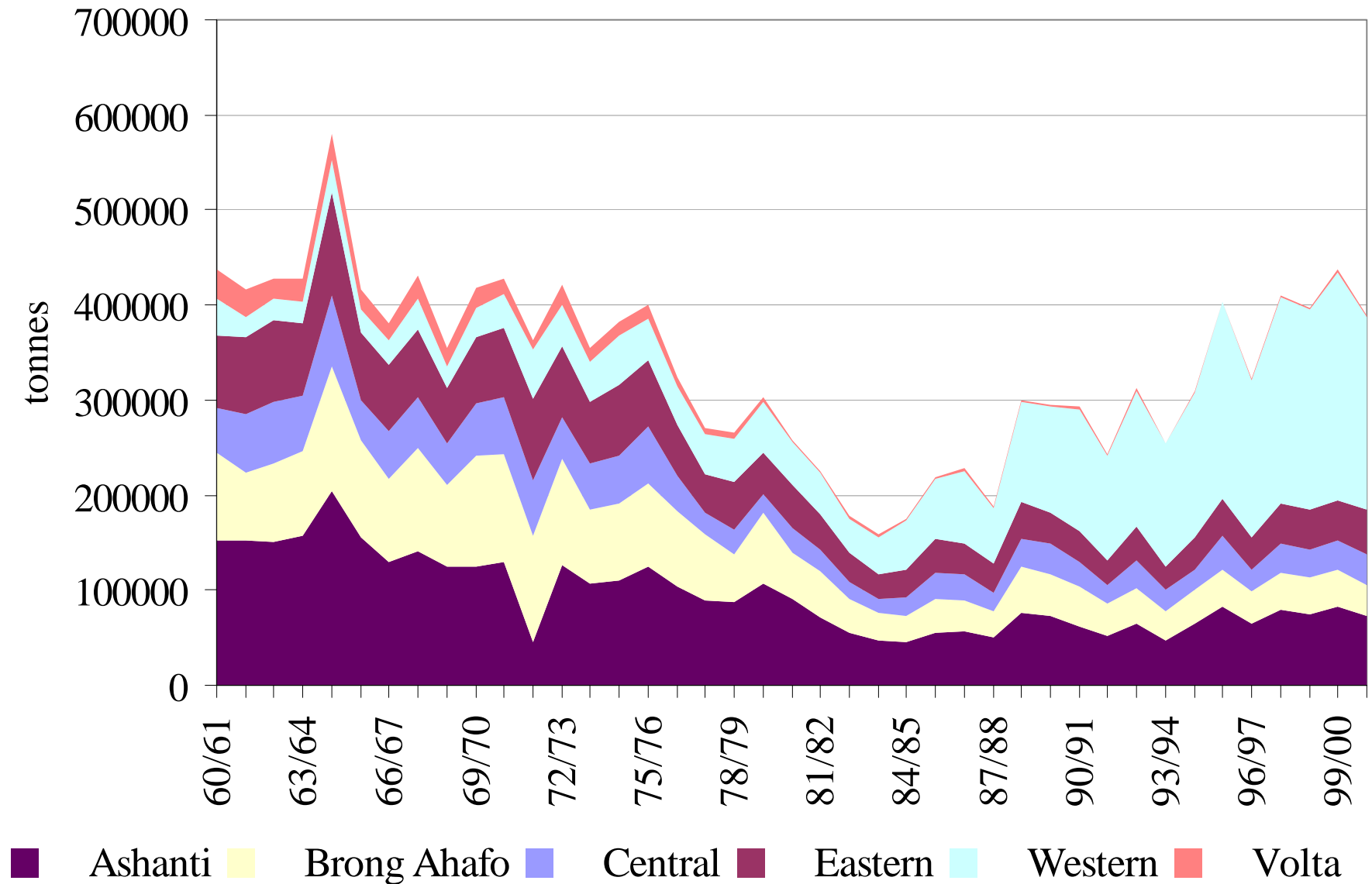


Cocoa. Production and real producer price in Ghana. 1960/61-2006/07



The 'cocoa shifting cultivation' pattern in Ghana Cocoa

production per region. 1960-2000.





Among the other lessons taught by cocoa 'monoculture': the weight of **Indebtedness**

Indebtedness was one of the major issues raised by Beckett (1944), even before he started talking about cocoa! (p 30-45).

Lack of cash, **late** payments, **seasonal** payments leads to structural indebtedness

Hence a strong need of

- education, external help as said by Beckett,
- but also and more importantly :

Diversification of **revenues**

How does this model apply
to the coconut industry?

2. Life Cycle: Ageing coconuts and Ageing farmers

Various diagnosis before and after 2005
(before and after the Nigerians buyers come)



Coconut acreage, a function of the age of the head of family (Axim region, Nzema district, 2005)

Smallholders' age		Coconut acres	
	Moy.	Local	Hybrid
> 40	61	14.2	0.8
< 40	32	0.5	0
All	49	8.9	0.5

How does this model apply
to the coconut industry?

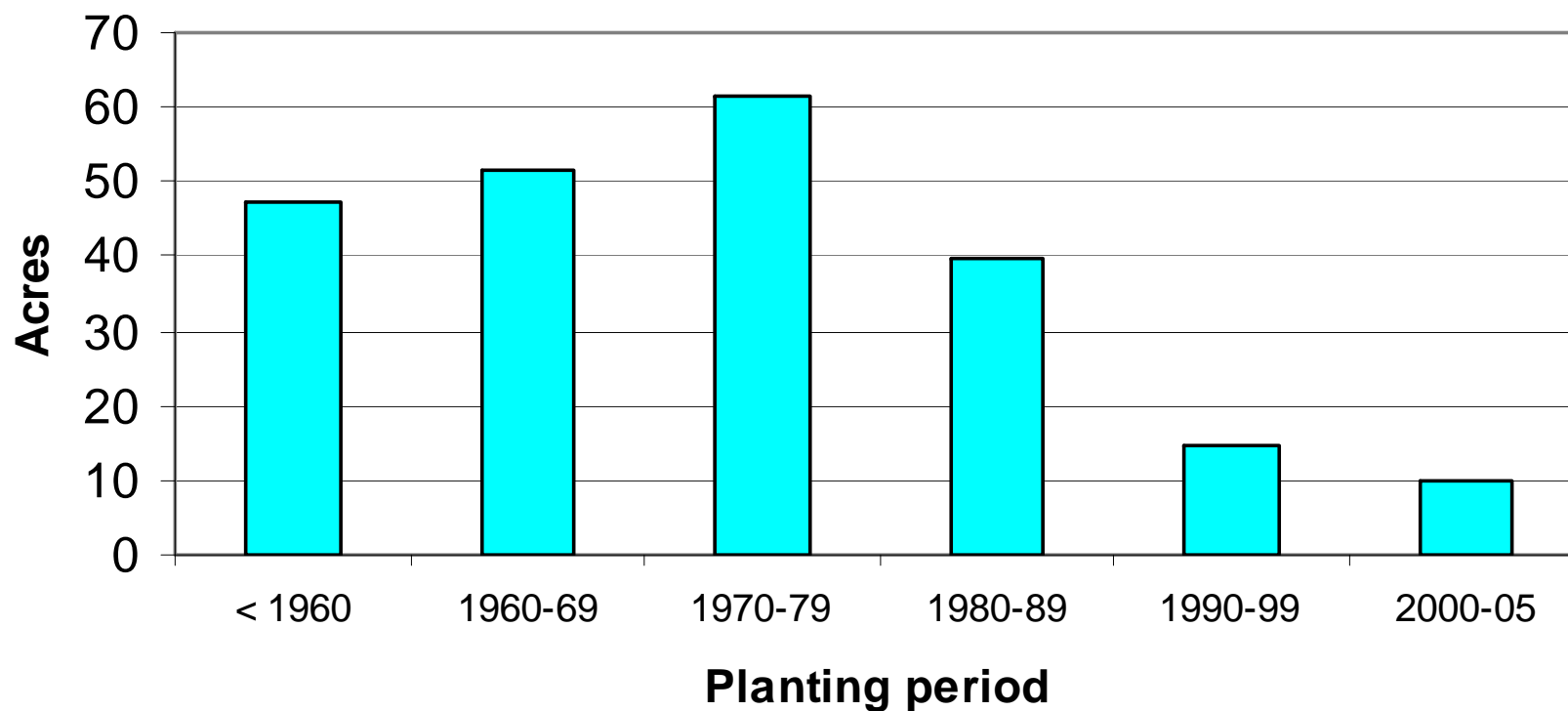
3. Ecological Change and Production Shifts

Various diagnosis before and after 2005
(before and after the Nigerians buyers come)

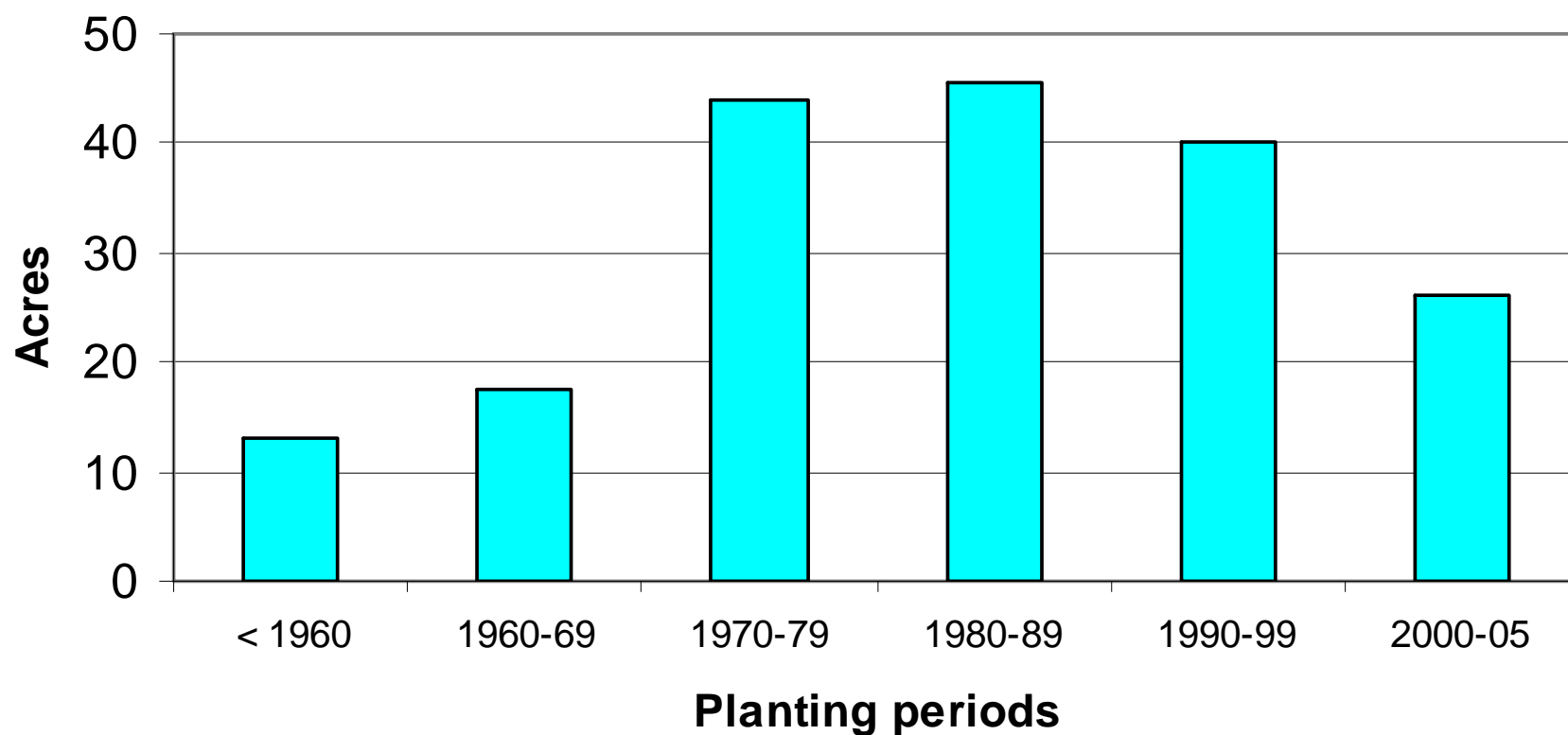
3.1 A East-West shift

Diagnosis in 2005
(before the Nigerians buyers come)

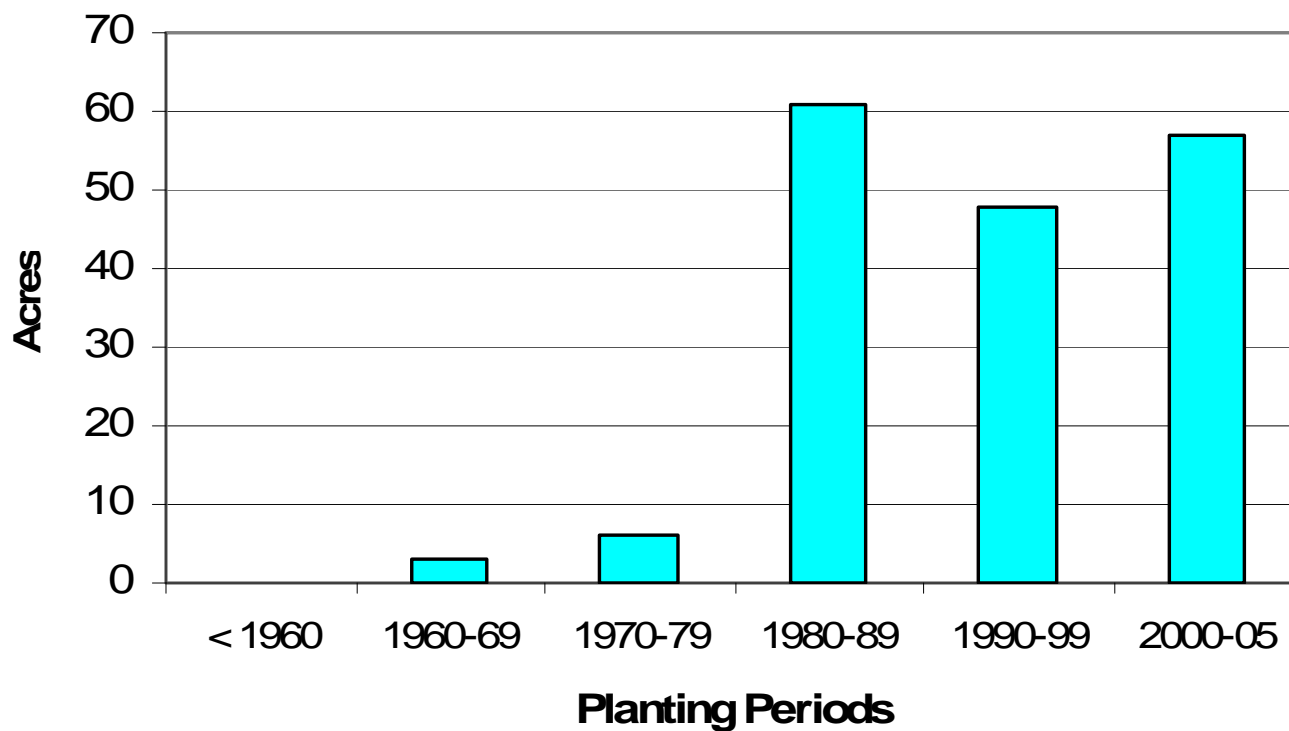
**Fig. 2 Age distribution of coconuts
at Asanta and Bobroma (littoral zone)
All Indigenous farmers**



**Fig.3 Age distribution of coconuts
at Nkroful (5km far from the sea)
All Indigneous farmers**



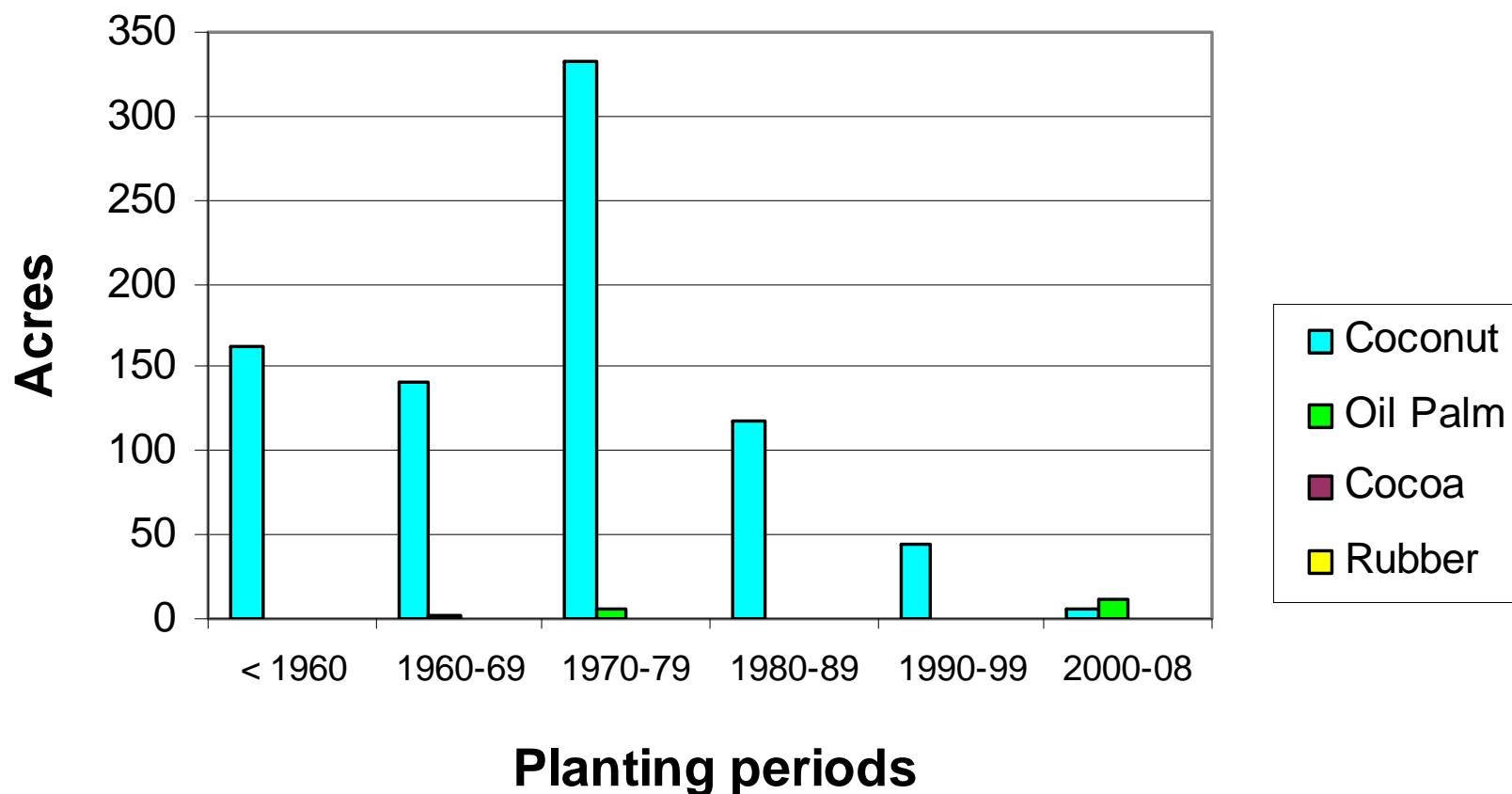
**Fig. 5 Planting Profile of Coconut farms
at Sowodadzem (35 km far from the sea)**



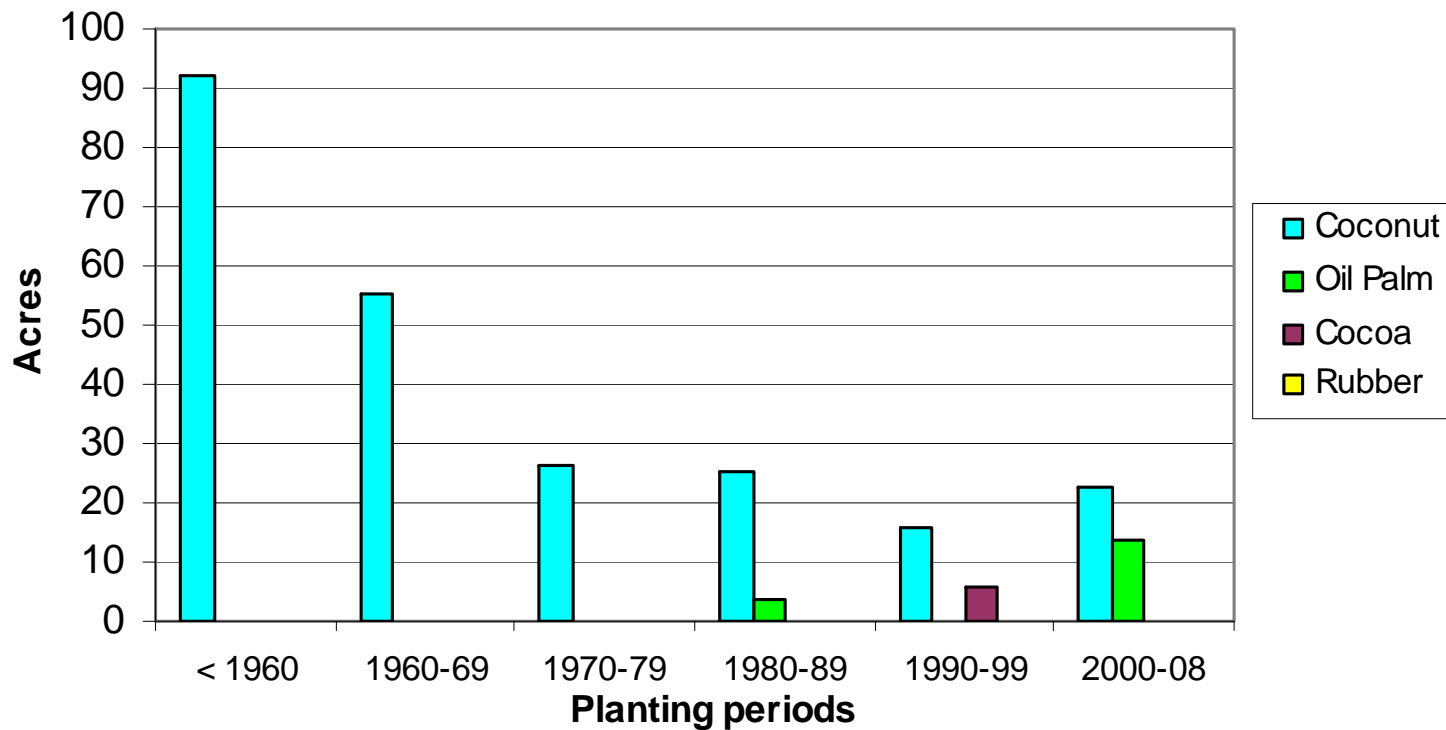
3.2 A South-North shift

Diagnosis in 2008
(After the Nigerians buyers come)

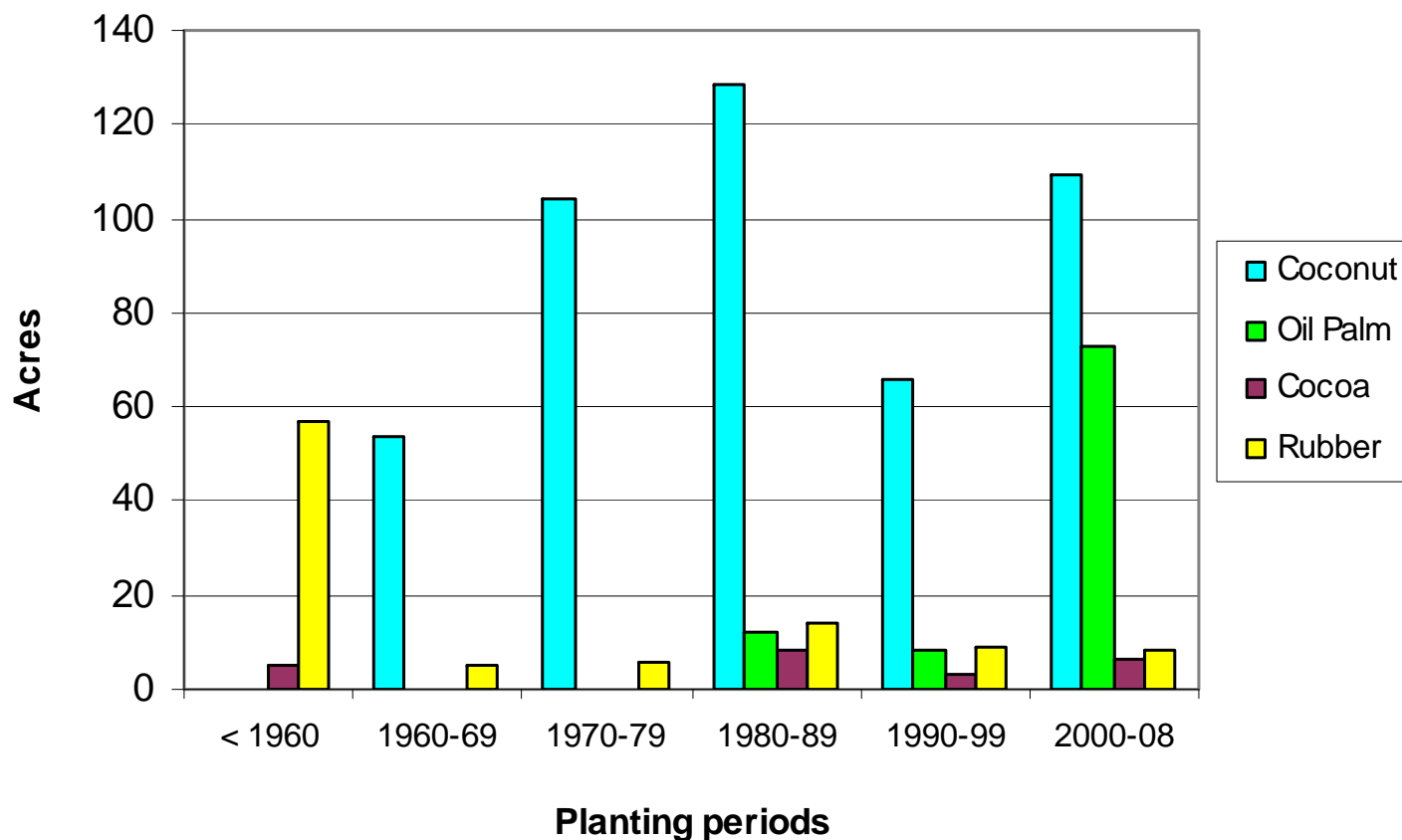
Investment in Planting Half-Assini



Annual Investment in Planting Atuabo



Investment in Planting Sameneye



3.3 A Inter-Province shift

towards Ashanti and Brong Ahafo for the fresh nut
market in Northern Ghana and Burkina Faso

How does this model apply
to the coconut industry?

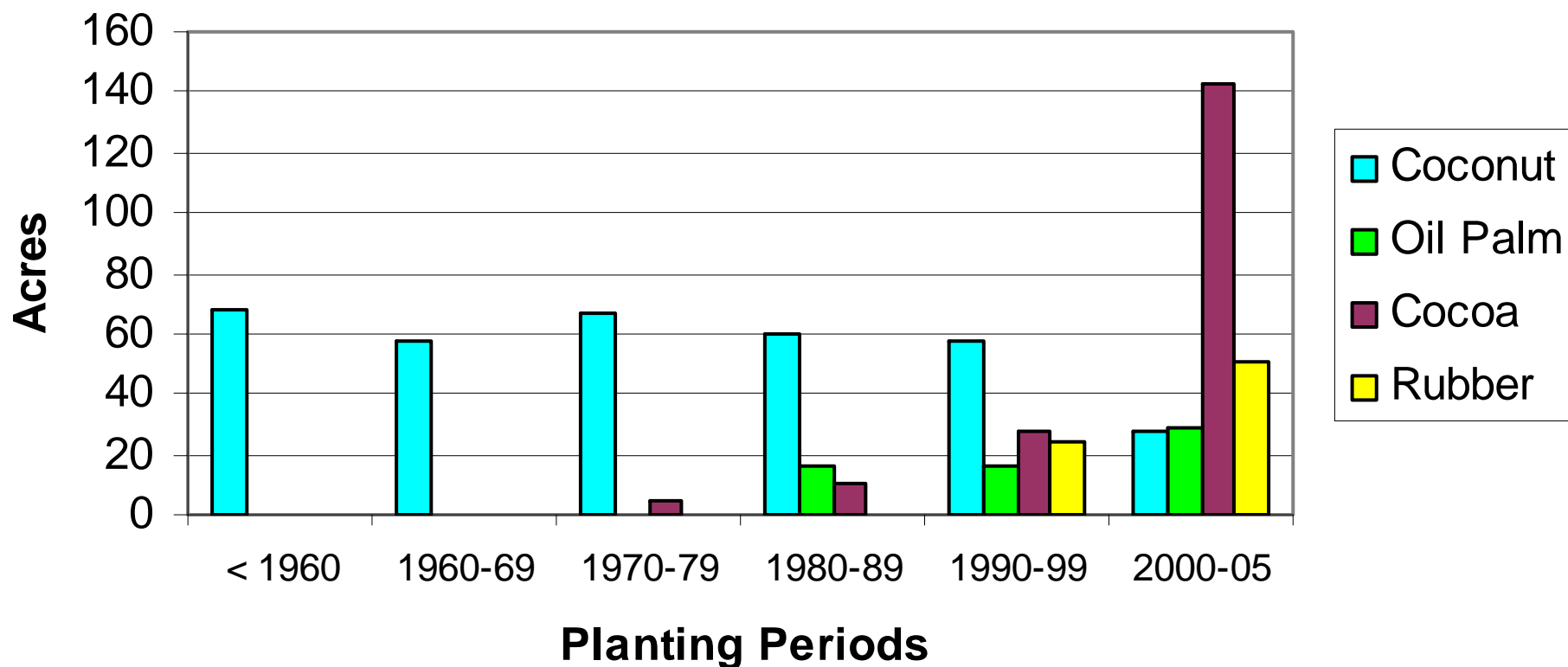
4. The expected output : an all strategy
of diversification, mostly tree crop
diversification

Various diagnosis before and after 2005
(before and after the Nigerians buyers come)

March 2005

Planting and cocoa hybrid adoption

Axim-Asasetre area. Western region, Ghana



Structure of farms, a function of the age of the head of family (Axim region, Nzema district, 2005)

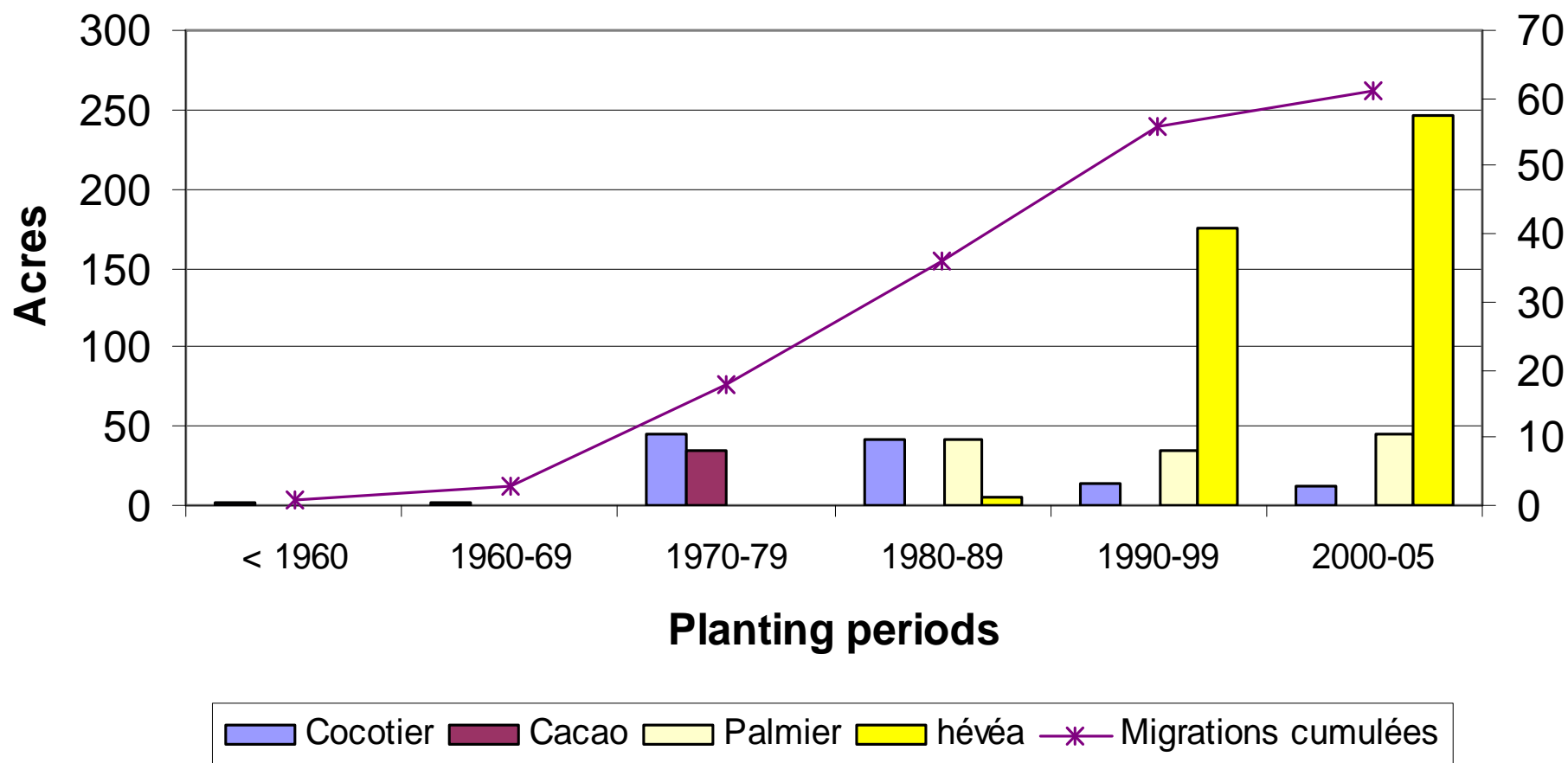
Age of smallholders		Acreage (acres)					Dependence/ coconut
		Coconut		Palm	Cocoa	Rubber	
	Moy.	Local	Hybrid				
> 40	61	14.2	0.8	1.3	6.5	4.0	56%
< 40	32	0.5	0	2.8	5.6	2.6	4%
All	49	8.9	0.5	1.9	6.2	3.4	44%







Age distribution of Planting per crop and migrations at Yediyesele





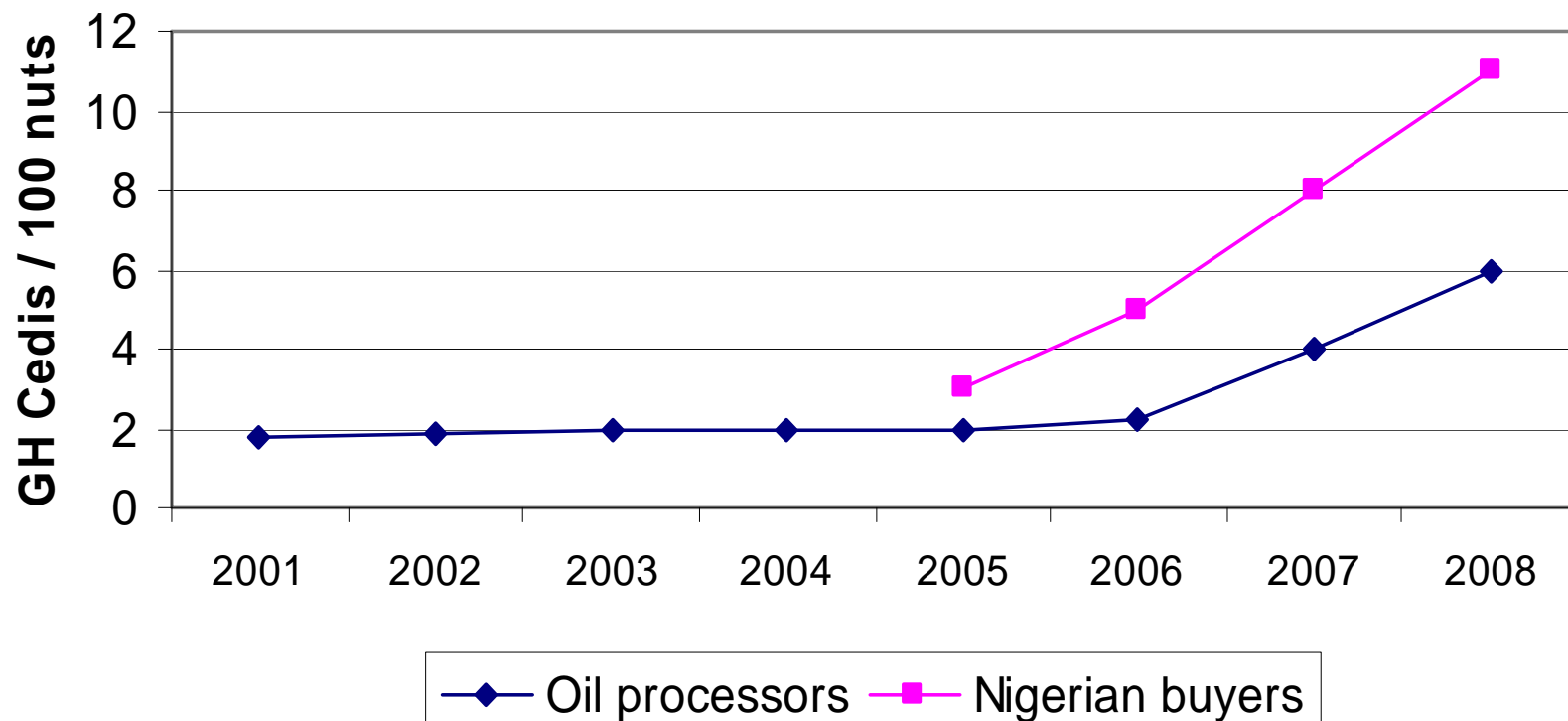
How does this model apply
to the coconut industry?

5. Application to the 'price increase' factor and how it reveals some of the institutional traps related to monoculture

Diagnosis after 2005
(after the Nigerians buyers come)

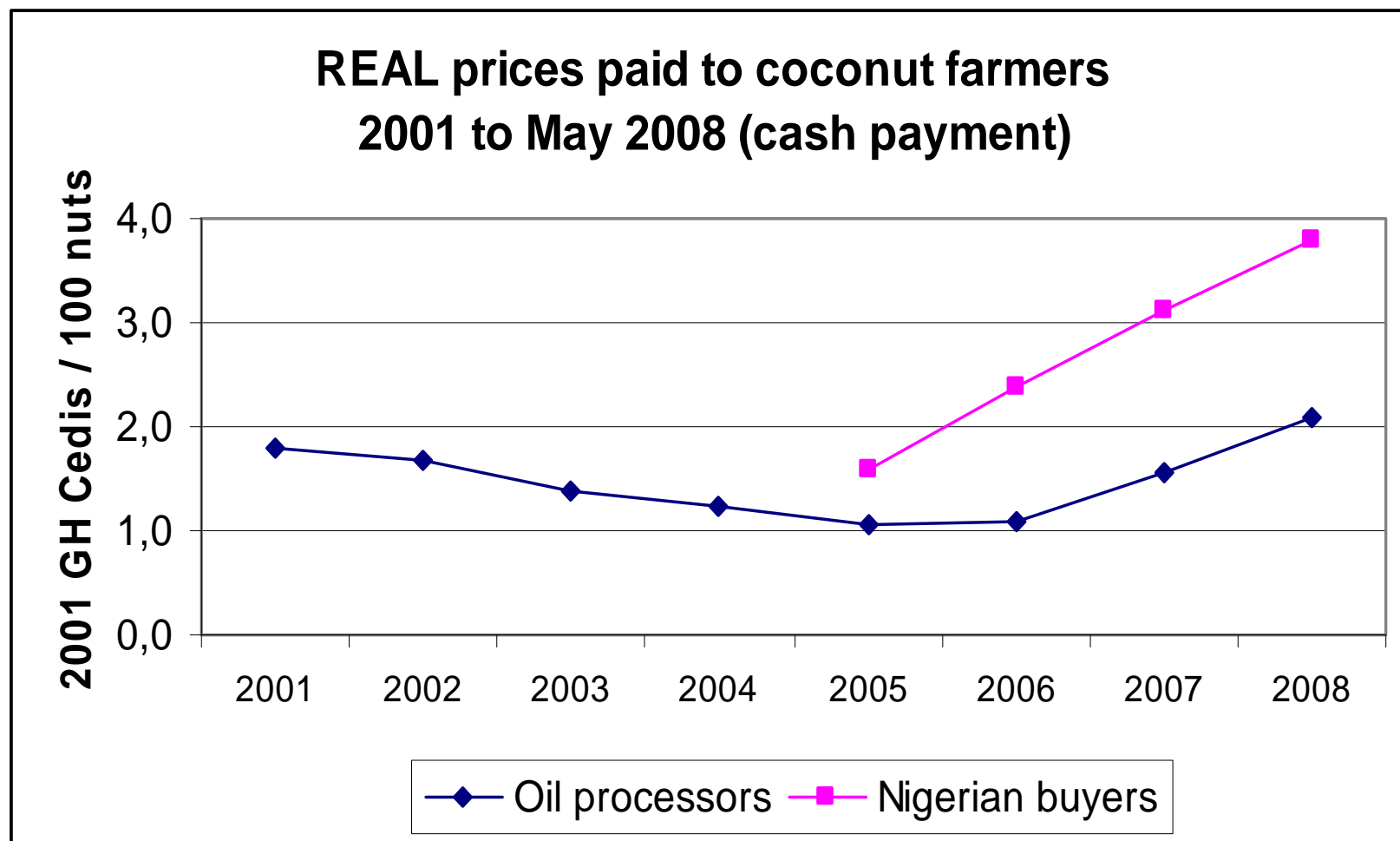
5.1 A true increase

**Nominal prices paid to coconut farmers
2001 to May 2008 (cash payment)**



5.2 ... but with some nuances:

a) Inflation and real terms



b) extra costs to get a direct access
to Nigerian buyers' prices

	Oil processing (farm gate price)	Direct sale to Nigerians (('Store' price)
Price (Cash payment)	4 to 6	8 to 11
Peeling	0	0.5 to 0,6
Transportation	0	0.5 to 1.5
Total	0	1.0 to 2.1
Farm gate price (Cash payment)	4 to 6	5.9 to 10.0

c) Geographical nuances : Nigerian buyers are in places with still a large supply of nuts

- Entire villages such as Asanta and Akobra, devastated by the LYD have logically no Nigerian buyers (but keep some oil processors)
- Villages such as N'Kroful, where the disease is currently striking but which still have many coconut farms, are not producing enough from Nigerians buyers' perspective
- **Actually, the true high prices of 8 to 11 GH cedis / 100 nuts are essentially concentrated in the major producing regions.**



d) A gap between Researchers' technical breakthrough and a certain type of regional demand

Nigerian buyers are mostly interested in local nuts because of their easy storage

Rapid germination of hybrid nuts is thus considered as a severe constraint for buyers who send their nuts hundreds of miles away

5.3 Price responses ?

Despite all these nuances, we still have a significant price increase within the last two-three years.

According to basic economic theories, producers should respond to these incentives.

Is that the case?



Maintenance:

Number of weed control : No impact

Before Nigerians	After
1.3	1.4

< 1	23%
1	40%
2	21%
3	16%
<hr/>	
100%	

b) Fertilizers: No purchase, hardly no use,

No impact

Number of farmers applying fertilizers

Before	After
Nigerians	
24%	2%
(from 1982 to 2004)	(since 2005/06)

b) Replanting:

No impact of the price increase

Investment in Replanting (acres/ household)

Before	After
Nigerians	
2001-2004	2005-2008
0,14	0,08

c) New planting of local coconuts

No impact of the price increase

Investment in New planting of local coconuts

Before	After
Nigerians	
2001-2004	2005-2008
0,07	0,05

d) New planting of hybrids

No impact of the price increase

Investment in New planting of local hybrids

Before	After
Nigerians	
2001-2004	2005-2008
0,05	0,01

5.4 Why 'no response', at least until 2008 ?

A come back to the model .. and to the reality



a) Indebtedness = No price increase !

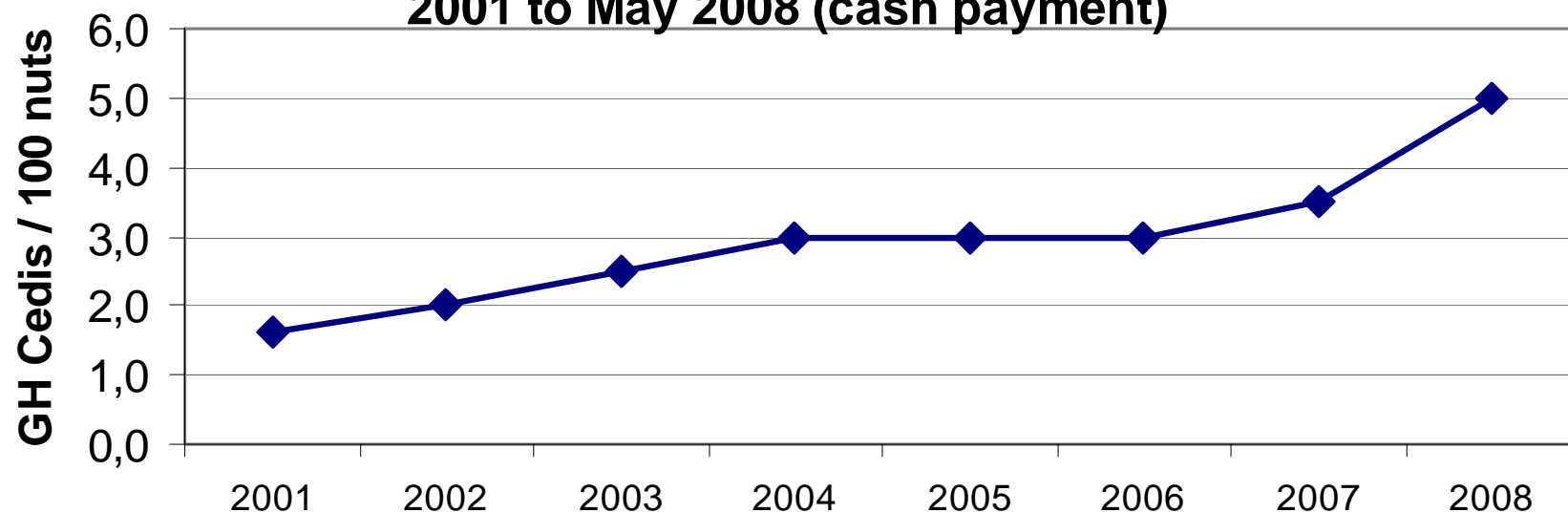
To a certain extent, it reflects some of the most dangerous institutional traps related to monoculture.

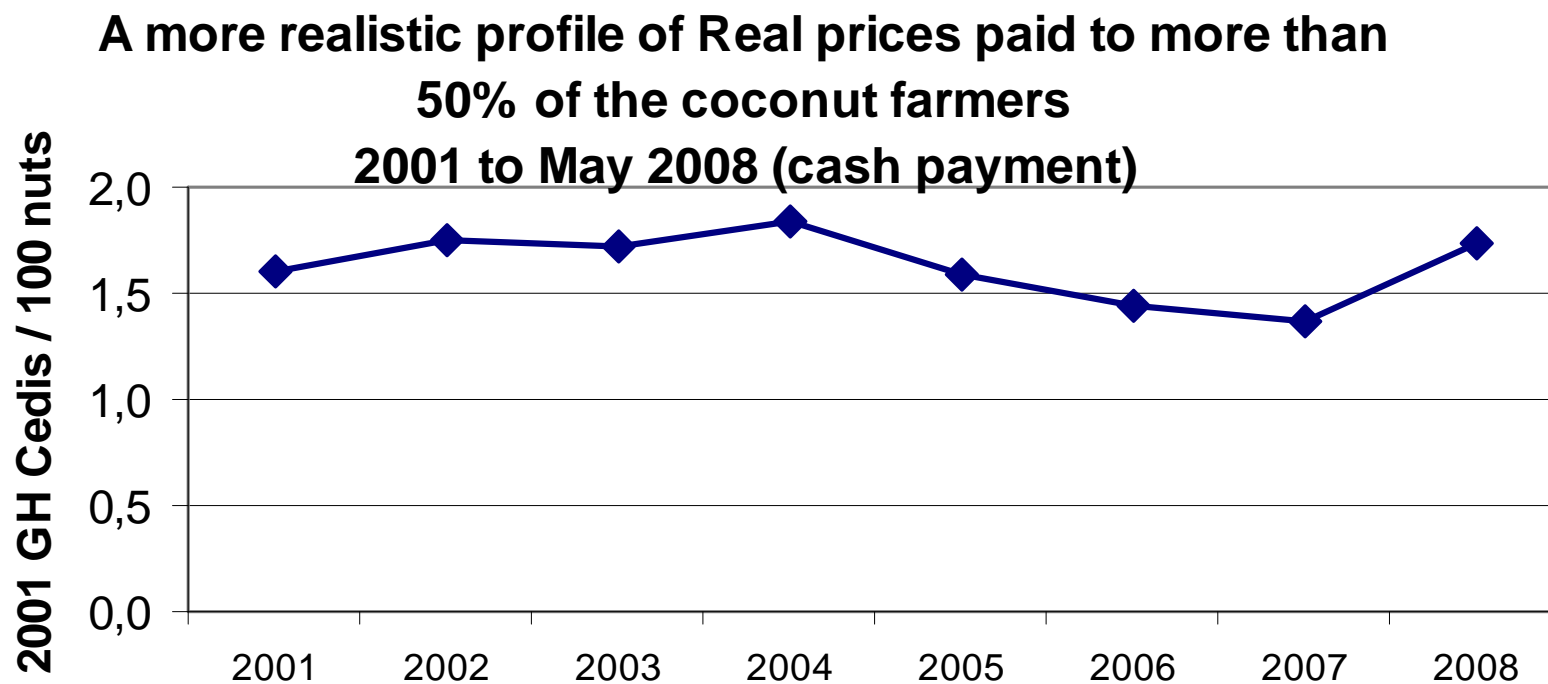
Price (GH Cedis)	Number of farmers		
2	5	64	74% have no access to the Nigerian buyers' price
3	39		
4	18		
5	2		
6	2	12	14% have a limited and indirect access
7	10	10	12% have a full access to the Nigerian buyers' price
8	2		
9	7		
10	1		
11	0	86	100%
	86		

If does not sell to Nigerians, why ?

1. stuck by indebttness	39	61%
2. No access to credit wih Nigerians	8	13%
3. Additional cost of peeling and transportat°	10	16%
4. No trust. Lack of confidence	7	11%
	<hr/>	
	64	100%

**A more realistic profile of nominal prices paid
to more than 50% of coconut farmers
2001 to May 2008 (cash payment)**





b) Inter-generational conflicts and theft by the young generation (according to old farmers):

Here, there is a price impact: the higher price introduced by Nigerians buyers did increase the level of theft

Percentage of stolen nuts according to farmers	
Before Nigerians	Now
20%	67%

	2004/05	2007/08	Increase	
				%
Price / 100 nuts	2,6	4,3	1,7	67%
Estimated revenue / every 3 months	241	305	63	26%

[The Economy of theft

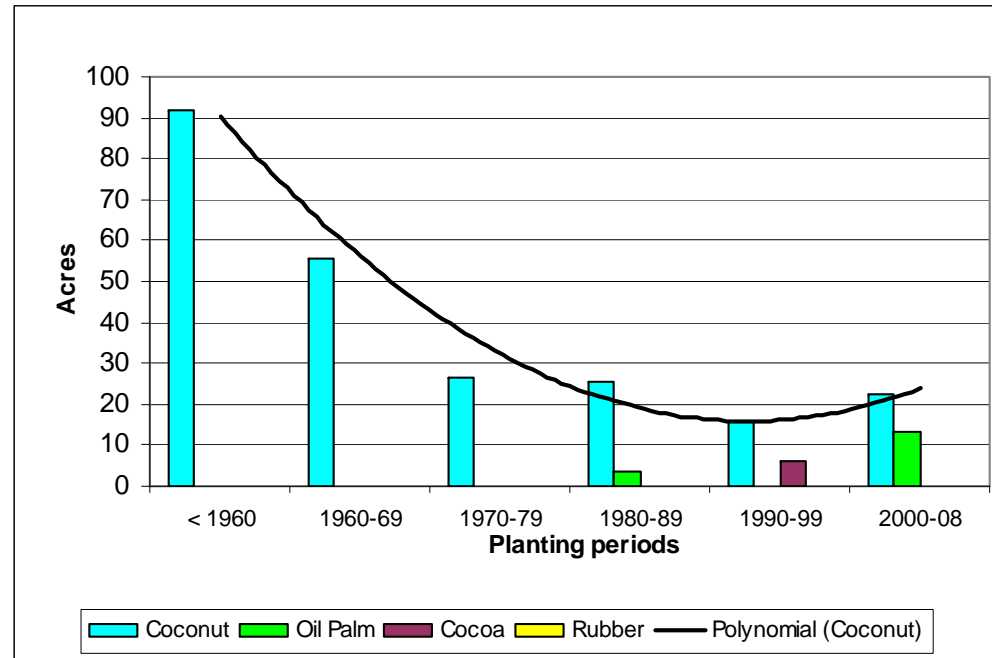
To a certain extent, the indebtedness of the old farmers might be a direct encouragement for sons to steal nuts

because, young people (probably) sell the nuts straightforward to the Nigerians and escape the indebtedness trap

...]

c) Lack of land, occupied by the coconut monoculture

d) lack of energy, lack of labour





Farmers' declared hierarchy of their constraints (If explicitly asked why they do not plant /replant)

* In disease-free regions, hybrids are still viewed positively

	Replanting	New Planting
1= No energy, leave it for the children to come 2 = lack of money 3 = 1+2	18 25%	37 49%
4 = No change but he will replant the hybrid type if he get it	25 35%	17 22%
5 = No dead coconuts = no reason to replant / plant 8 = No disease yet 6. Lack of land	19 4 34% 1	5 0 22% 12
7. Because of the theft	4 6%	5 7%
	71	76

6. Farmers' perceptions of Hybrids in 2008

In villages where the disease is currently striking coconuts, including hybrids,

almost no farmer willing to think to coconuts again

In villages where the LYD already swept coconut farms:
the 'coconut' disgust remains high

- although a number of hybrid farms did not die,
- or did not die because of the LYD but rather due to a lack of maintenance,
- although many farmers believe that the disease has now gone and will not come back any time soon.

In currently LYD-free villages, there is still some relatively strong confidence in hybrids. But the planting material is too expensive for them.

5. Conclusion.

What next for the future of coconut farmers and the coconut industry ?

Diagnosis in June 2008

1. Coconut farmers in the Westen region of Ghana

In villages devastated by LYD, and 4 years of project and research, the 'survivors' remain enormously **frustrated and impoverished**. Many passed away a short time after their coconuts.

They faced a disaster and finally the immense majority received **NO help at all**.

In LYD free regions, farmers remain **extremely poor**. **They hardly benefit the price surge**.

The attempt of **the 1999-2003 Coconut replanting project** was going in the right direction. It is a partial failure because of

- **only one hybrid**, which proved to be poorly tolerant when the LYD is fully active, (even more sensitive than the tall African coconut, according to some farmers)
- **Relatively ill-targeted farmers** (absenteists, old farmers) and possibly insufficient information about the hybrid requirements (weeding, fertilizer, .)
- **Some of the extremely difficult but key problems such as indebtedness and dependency on credit and ageing farmers** were not clearly understood, at least not targeted by the 'fathers' of this project.

But it is also a (relatively hidden) success:

through the [planting material](#), despite its sensitiveness to the disease, [with a formal and unformal trade of planting material towards Kumasi and Brong Ahafo](#).

Hybrids may not fit Nigerian buyers' requirements but seem to have a great potential to meet the demand for fresh nuts in the north.

2. The coconut industry in the Westen region of Ghana

=

A classical and enormous **paradox** between

- a suddenly **booming demand** for a commodity (here coco nuts)
- and a **structural decline of supply**

The supply/demand adjustment will thus be probably made through further **shifts of production**

- towards the north of Jomoro and Nzema,
and beyond that,
- up to Ashanti and Brong Ahafo regions in Ghana.

* Côte d'Ivoire will also benefit the booming demand. Farmers respond to Nigeria buyers' prices. Investments in (mostly local) coconuts have resumed in this country.

Nevertheless, an almost obvious « conclusion of the conclusion »:

- Not to let down thousands of individuals and families
- to test other hybrids and resume research on coconuts in the western region, at least with a small number of farmers and a more participative approach.
- approach to problem of youth and inter-generational conflicts
- seriously address this issue of **credit and chronic indebtedness**.

To a large extent, this coconut story the proof in itself of disastrous flaws of monoculture in the long run and a strong need of **DIVERSIFICATION** : may be the only advantage of this coconut crisis.



Many Thanks from the Western Region